

STATE OF CALIFORNIA
STANDARD AGREEMENT
STD 213 (Rev 06/03)

AGREEMENT NUMBER
10-C0102
REGISTRATION NUMBER 1139051

1. This Agreement is entered into between the State Agency and the Contractor named below:

STATE AGENCY'S NAME

Department of Pesticide Regulation (DPR)

CONTRACTOR'S NAME

The Regents of the University of California

2. The term of this March 1, 2011 or upon final approval by the State, which ever occurs later, through June 30, 2013 Agreement is:
3. The maximum amount \$245,893.00 of this Agreement is: Two hundred forty-five thousand eight hundred ninety-three dollars and no cents
4. The parties agree to comply with the terms and conditions of the following exhibits which are by this reference made a part of the Agreement.

Exhibit A – Scope of Work 5 Pages

Exhibit B – Budget Detail and Payment Provisions 4 Pages

Exhibit C* – General Terms and Conditions . (GIA 610)

Exhibit D - Special Terms and Conditions 1 Page

Exhibit E – Additional Terms and Conditions 1 Page

Exhibit F – Resumes 12 Pages

Items shown with an Asterisk (*), are hereby incorporated by reference and made part of this agreement as if attached hereto. These documents can be viewed at <http://www.ols.dgs.ca.gov/Standard+Language/default.htm>

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

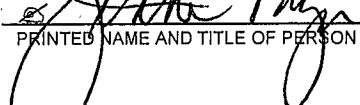
CONTRACTOR	
CONTRACTOR'S NAME (if other than an individual, state whether a corporation, partnership, etc.)	
The Regents of the University of California	
BY (Authorized Signature) 	DATE SIGNED (Do not type) 3-7-11
PRINTED NAME AND TITLE OF PERSON SIGNING KATHLEEN P. NOLAN, J.D. Associate Director, Sponsored Programs	
ADDRESS Office of Research, Sponsored Programs 1850 Research park Drive, Suite 300, Davis, CA 95618	
STATE OF CALIFORNIA	
AGENCY NAME	
Department of Pesticide Regulation	
BY (Authorized Signature) 	DATE SIGNED (Do not type) 3/11/11
PRINTED NAME AND TITLE OF PERSON SIGNING	
ADDRESS 1001 I Street, Sacramento, CA 95814	
<i>Michael L. Goldberger</i>	
<input type="checkbox"/> Exempt per:	

EXHIBIT A
STANDARD AGREEMENT

SCOPE OF WORK

1. The Regents of the University of California is hereinafter referred to as UC Davis or Contractor
2. This Agreement will commence on the start date March 1, 2011 as presented herein or upon final approval by the State, whichever is later and no work shall begin before that time. This Agreement is of no effect unless approved by the State. Contractor shall not receive payment for work performed prior to approval of the Agreement and before receipt of notice to proceed by the Contract Manager. This Agreement shall expire on June 30, 2013. The services shall be provided during normal working hours.
3. The Project Representatives during the term of this Agreement will be:

- A. All official communications, except invoices, from the Contractor to DPR shall be directed to the attention of the DPR Contract Manager, Dr. Robert Budd, at:

Department of Pesticide Regulation
Environmental Monitoring Branch, MS 3B
1001 I Street
P.O. Box 4015
Sacramento, CA 95812-4015

Phone (916) 445-2505 Fax (916) 324-4088
E-mail: rbudd@cdpr.ca.gov

- B. All invoices from the Contractor to DPR shall be directed to:

Department of Pesticide Regulation
Attn: Accounts Payable
P.O. Box 4015, MS 4A
Sacramento, CA 95812-4015

- C. All programmatic communications from DPR to the Contractor shall be directed to the attention of Dr. Ron Tjeerdema:

Dr. Ron Tjeerdema
Department of Environmental Toxicology
One Shields Ave
UC Davis, CA 95616

Phone: 530-754-5192 Fax: 530-752-3394
Email: rstjeerdema@ucdavis.edu

EXHIBIT A
STANDARD AGREEMENT

- D. All administrative communications, except payments, from DPR to the Contractor shall be directed to:

Kathleen P. Nolan, J.D.
Associate Director
Office of Research, Sponsored Programs
1850 Research Park Drive, Suite 300
Davis, CA 95618

Phone: 530-754-7700 FAX: 530-754-8229
Email Address: knolan@ucdavis.edu

- E. All payments from DPR to the Contractor shall be directed to:

Cashier's Office
P.O. Box 989062
West Sacramento, CA 95798-9062

- F. The Project Representatives during the term of this Agreement may be changed by mutual written agreement without the necessity of formal amendment to this Agreement.

4. Background and Goals

Interest in evaluating urban runoff as a source of pesticide loading to surrounding waterways has increased in recent years. Although the total amount is unknown due to unreported homeowner use, it has been estimated that millions of pounds of urban pesticides are applied annually. Pyrethroids, fipronil (and degradates), carbamate and organophosphorous insecticides, some fungicides, and various herbicides are frequently found in urban surface waters. Most often several different pesticides are found in surface waters simultaneously, and these combinations may have a synergistic toxic effect to aquatic organisms. In California, during the dry summer and early fall months, urban surface waters are augmented with water from numerous sources, as lawn and landscape irrigation, washing of cars, hosing down of hardscape surfaces, etc. All of these sources will potentially carry pesticides. Pesticide movement from urban landscapes increases dramatically during rain events. County and city regulatory agencies are increasingly interested in finding cost effective measures to mitigate contaminants in runoff from urban sources. In-stream constructed wetlands have shown potential as a best management practice (BMP) to help reduce downstream pesticide concentrations. The objectives of the monitoring portion of this work are three-fold: 1) to determine pesticide concentrations in water and sediments from storm drain outflows in representative urban areas located in southern California during both dryflow and rain

EXHIBIT A
STANDARD AGREEMENT

events; 2) to determine the mitigation effects of an urban wetland built within the Wood Creek Watershed on reducing pesticide inputs into urban creek receiving waters during dryflow and rain events; and 3) monitor downstream transport of pyrethroid pesticides bound to sediments within the watershed during various flow conditions.

Enzyme-linked immunosorbent assay (ELISA), is a biochemical technique used for detecting specific compound(s) in environmental and biological samples. Compared to conventional analytical methods such as gas chromatography (GC), high pressure liquid chromatography (HPLC) and mass spectroscopy, ELISA is considered a more rapid, cost-effective, and less labor-intensive alternative for analysis of pesticides in large numbers of environmental samples. However, ELISA is also prone to matrix effects – either due to the presence of cross-reactants or nonspecific interferences. The objectives of this study are: 1) to validate commercial ELISA pesticide kits for sensitivity, precision, accuracy, matrix effects, and selectivity; 2) to develop analytical procedures by applying validated ELISA kits to ambient water and sediment samples in agriculture and urban pesticide mitigation projects.

Aquatic life benchmarks, developed for baseline risk assessments, are estimates of the concentrations below which pesticides are not expected to harm aquatic life. Comparing a measured concentration of a pesticide in water with an aquatic life benchmark can be helpful in interpreting monitoring data; and to identify and prioritize sites and pesticides that may require further investigation. Development of aquatic life benchmarks is a long term goal of United States Environmental Protection Agency (EPA), Office of Pesticide Programs and the California Department of Pesticide Regulation (CDPR / DPR). The objective of this project is to develop a national database aquatic benchmarks based on the EPA's most recent pesticide risk assessments.

5. Work to Be Performed

Task 1. Monitoring and Mitigation of Pesticide Runoff

- Prepare monitoring equipment and supplies at DPR's West Sacramento, Calif. facilities at 3971 Commerce Drive, Suite D, West Sacramento, CA 95691.
- Collect water samples, either with the use of automated sampling equipment or through grab sample collection, during dryflow and rainstorm sampling events in northern and southern California. May include overnight travel (up to 10 nights lodging per year) and up to 12 days of overtime pay (per year). Water samples will be collected for chemical analysis and aquatic invertebrate toxicity testing.
- During all sampling events collect water quality parameters such as pH, DO, water temperature, EC, and flow data.
- Collect sediment samples for chemical analysis and aquatic invertebrate toxicity testing.

EXHIBIT A
STANDARD AGREEMENT

- Deliver sediment and water samples to DPR's West Sacramento, CA facilities for chemical analysis and to UCD ATL (University of California, Aquatic Toxicity Lab) for aquatic invertebrate testing.

Task 2. Data Entry and Analysis.

- Conduct total organic carbon and total suspended sediment analysis at DPR's West Sacramento facilities.
- Enter monitoring data collected from automated sampling equipment or from grab samples into the existing DPR Surface Water's ACCESS Urban Database. Data includes (but not limited to) information collected on field data sheets, analytical data, and QA/QC checks of the data.
- Perform data summary, data analysis, and report writing, including summarizing and analyzing monitoring and toxicity data and writing of papers relevant to the mission of DPR.
- Enter new data and keep current the California portion of the existing EPA's Pesticides of Interest Tracking System (POINTS) database.
- Enter values into DPR's existing pesticide physiochemical, toxicological and use database.
- Complete environmental fate (E-fate) papers of pesticides of ecological concern.

Task 3. Development of aquatic life benchmarks

- Review U.S. EPA's environmental risk assessment for pesticides.
- Extract relevant acute and chronic toxicity data from risk assessment for aquatic benchmark calculation based on established procedures.
- Enter calculated benchmarks and associated information into existing Excel™ spreadsheets formatted for upload into EPA's existing aquatic life benchmark database.
- Review aquatic life benchmark datasheets for quality assurance.

Task 4. Validation of ELISA commercial kits for Pesticides in Water and Sediment

- Perform ELISA based on manufactory instructions on spiked and environmental samples.

EXHIBIT A
STANDARD AGREEMENT

- Develop extraction procedures coupled with validated ELISA kits for ambient water and sediment samples.
 - Provide report to DPR on ELISA result and extraction procedures.

6. Project Timeline

EXHIBIT B
Standard Agreement

BUDGET DETAIL AND PAYMENT PROVISIONS

1. Invoicing

- A. For services performed according to the attached Scope of Work and the terms of this Agreement and approved by the Contract Manager and upon receipt and approval of the invoices, DPR agrees to compensate Contractor, in arrears, for actual allowable costs incurred as specified herein and in accordance with the rates specified herein or attached hereto. Incomplete or disputed invoices shall be returned to Contractor, unpaid, for correction.
- B. Invoices shall include the Agreement Number and shall be submitted in triplicate, quarterly in arrears, to:

Department of Pesticide Regulation
Attn: Accounts Payable
P.O. Box 4015, MS-4A
Sacramento, CA 95812-4015

2. Budget Contingency Clause

- A. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, DPR shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.
- B. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, DPR shall have the option to either cancel this Agreement with no liability occurring to DPR, or offer an Agreement Amendment to Contractor to reflect the reduced amount.

3. Payment

- A. Costs for this Agreement shall be computed in accordance with State Administrative Manual (SAM) Sections 8752 and 8752.1.
- B. Nothing herein contained shall preclude advance payments pursuant to Article 1, Chapter 3, Part 1, Division 3, Title 2 of the California Government Code, Sections 11256 and 11257.
- C. Transportation and subsistence costs shall not exceed rates authorized to be paid UC system non-represented employees traveling within California.
- D. Contractor will be reimbursed for direct costs, other than salary costs, that are identified in the Contractor's rates.

EXHIBIT B
Standard Agreement

- E. Contractor will bill in arrears for costs incurred during the billing period. If applicable, salary costs will be itemized and billed by position. Documentation supporting specific salary costs will be presented if requested by DPR. Non-wage costs will be billed, in summary, according to general expense categories. A detailed report of transactions will support the billing. Individual expenditures exceeding \$500.00 will be supported by a photocopy of the original documentation. Documentation in support of expenditures less than \$500.00 will be presented if requested by DPR.
- F. Contractor shall not commence performance of work or services until this Contract has been approved by the State. No payment will be made prior to approval nor for any work performed prior to approval of this Agreement.
- G. Ten percent (10%) of the total amount of the Agreement shall be withheld by DPR until the completion of services performed according to the attached Scope of Work and the terms of this Agreement.

4. Rates

Rates for these services are as follows:

	Total Amount
1. Salaries & Wages	\$169,646
2. Benefits①	\$39,474
3. Travel②	\$3,000
4. Training③	\$1,200
5. Contractual	\$00
6. Minor Equipment④ or Equipment	\$500
7. Indirect Cost⑤ 15%	\$32,073
	Total Amount
	\$245,893

①Benefits include: Worker's Compensation and other benefits appropriate for title
(NOTE: Student Interns are non-personnel employees with no benefits and shall be excluded from the percentage calculation of this line item.)

②Travel includes: Invoice for payments on travel shall be based on current University of California rates and guidelines

③Training for interface with databases.

④Minor Equipment: line item does not include any equipment with a unit acquisition of \$5,000 or more. If over 5,000 then line item must be identified as "Equipment" line item and Exhibit E will require special language.

⑤Indirect Cost: 10 - 25% indirect cost rate includes: depreciation of buildings and equipment, utility consumption, operations and maintenance costs, administrative services provided at the departmental and central level, and library costs.

EXHIBIT B
Standard Agreement

Table II - Details Personnel (2010-2011)

Personnel	Monthly Salary	Number of Months	Percentage of Time	Cost
Principal Investigator	\$12,921	0	50%	\$00
Postdoctoral Researcher	\$3,000	0	100%	\$00
Junior Specialist	\$2,806	5	100%	\$14,030
Graduate Student Researcher	\$4,205	3	48%	\$6,054
Graduate Fee Remission	\$1,592	3	100%	\$4,776
Total Personnel				\$24,860
Benefits				
Principal Investigator (22%)	\$2,843	0	50%	\$00
Postdoctoral Researcher (25%)	\$750	0	100%	\$00
Junior Specialist (25%)	\$702	5	100%	\$3,510
Graduate Student Researcher (3%)	\$126	3	48%	\$182
Total Benefits				\$3,692
Total Personnel and Benefits				\$28,552

Table II - Details Personnel (2011-2012)

Personnel	Monthly Salary	Number of Months	Percentage Of Time	Cost
Principal Investigator	\$13,976	1	50%	\$6,988
Postdoctoral Researcher	\$3,145	12	100%	\$37,740
Junior Specialist	\$2,806	12	100%	\$33,672
Graduate Student Researcher	\$4,205	0	48%	\$00
Graduate Fee Remission	\$1,592	0	100%	\$00
Total Personnel				\$78,400
Benefits				
Principal Investigator (22%)	\$3,075	1	50%	\$1,538
Postdoctoral Researcher (25%)	\$786	12	100%	\$9,432
Junior Specialist (25%)	\$702	12	100%	\$8,424
Graduate Student Researcher (3%)	\$126	0	48%	\$00
Total Benefits				\$19,394
Total Personnel and Benefits				\$97,794

EXHIBIT B
Standard Agreement

Table II - Details Personnel (2012-2013)

Personnel	Monthly Salary	Number of Months	Percentage of Time	Total Amount
Principal Investigator	\$13,976	1	50%	\$6,988
Postdoctoral Researcher	\$3,313	12	100%	\$39,756
Junior Specialist	\$2,806	7	100%	\$19,642
Graduate Student Researcher	\$4,205	0	48%	\$00
Graduate Fee Remission	\$1,592	0	100%	\$00
Total Personnel				\$66,386
Benefits				
Principal Investigator (22%)	\$3,075	1	50%	\$1,538
Postdoctoral Researcher (25%)	\$828	12	100%	\$9,936
Junior Specialist (25%)	\$702	7	100%	\$4,914
Graduate Student Researcher (3%)	\$126	0	48%	\$00
Total Benefits				\$16,388
Total Personnel and Benefits				\$82,774

5. Cost Limitation

- A. The total amount of this Agreement shall not exceed \$245,893.00.
- B. It is understood and agreed that this total is an estimate and that DPR will pay for only those services actually rendered as authorized by the DPR Contract Manager or his/her designee.

EXHIBIT D
Standard Agreement

SPECIAL TERMS AND CONDITIONS

1. Termination

- A. Either Party reserves the right to terminate this agreement without cause upon thirty (30) days written notice to the other Party, or immediately in the event of a material breach. In the event of termination, Contractor shall be paid for all allowable costs incurred up to the date of termination, including any non-cancelable obligations.
- B. In the event that the total Agreement amount is expended prior to the expiration date, DPR may, at its sole discretion, terminate this Agreement with 30 days notice to contractor.

2. Subcontracting

Contractor shall perform the work contemplated with resources available within its own organization and no portion of the work shall be subcontracted.

3. Dispute Resolution

- A. DPR reserves the right to issue an order to stop work in the event that a dispute should arise, or in the event that the DPR gives the performing agency a notice that this Agreement will be terminated. If DPR exercises this right, the stop-work order will be in effect until the dispute has been resolved or this Agreement has been terminated.
- B. Any dispute concerning a question of fact arising under the terms of this Agreement which is not disposed of within a reasonable period of time by agency employees normally responsible for the administration of this agreement, shall be brought to the attention of the Executive Officer or designated representative of each agency for joint resolution.
- C. The Contractor shall continue to perform all its responsibilities under this agreement during any dispute until notified to stop work or expiration of this Agreement.

4. Harassment Free Workplace

The Department of Pesticide Regulation (DPR) is committed to providing a safe, secure environment, free from sexual misconduct. It is policy of the Department that employees have the right to work in an environment that is free from all forms of discrimination, including sexual harassment. This policy specifically speaks to freedom from a sexually harassing act that results in the creation of an intimidating, hostile or offensive work environment or that otherwise interferes with an individual's employment or work performance. As a Contractor with DPR, you and your staff are expected to comply with a standard of conduct that is respectful and courteous to DPR employees and all other persons contacted during the performance of this Agreement. Sexual harassment is unacceptable, will not be tolerated; and may be cause for prohibiting some or all of the Contractor's staff from performing work under this Agreement.

EXHIBIT E
Standard Agreement

1. Contractor Evaluation

The Contractor is hereby notified that its performance under this Agreement may be evaluated within thirty (30) calendar days following the Expiration of this Agreement. The evaluation may include statements on the adequacy of the service or the product, whether the service was satisfactory, whether the service or the product was provided or completed within the time limitations, reasons for time or cost overruns, whether the product is operational or being utilized by the State, and/or the State plans for implementation, and the State's general impression as to the competency of the Contractor and its staff. The evaluation shall be filed in the State's official Contractor Evaluation File.

2. Consulting Services

- A. The Contractor is hereby advised of its duties, obligations and rights under Public Contract Code § 10335.5.
- B. The Contractor's key personnel assigned to perform work under this Agreement and their level of responsibility shall be mutually acceptable to the State and the Contractor.

EXHIBIT F
Standard Agreement

Ronald Scott Tjeerdema

Professional Preparation

Humboldt State University, Arcata, CA	Wildlife Management	BS 1980
Humboldt State University, Arcata, CA	Natural Resource Planning & Interpretation	BS 1980
University of California, Santa Barbara	Pharmacology & Toxicology	MA 1983
University of California, Davis	Pharmacology & Toxicology	PhD 1987

Appointments

- 2003–present Chair, Department of Environmental Toxicology, UC Davis
1999–present Professor, Department of Environmental Toxicology, UC Davis
1999–present Environmental Chemist, Agricultural Experiment Station, UC Davis
1998–99 Professor, Department of Chemistry & Biochemistry, UC Santa Cruz
1994–98 Associate Professor, Department of Chemistry & Biochemistry, UC Santa Cruz
1992–94 Assistant Professor, Department of Chemistry & Biochemistry, UC Santa Cruz

Professional Certification

- 1994–present Diplomate in General Toxicology, American Board of Toxicology (DABT)

Peer-Reviewed Publications

1. Tjeerdema, R. S., 1987. The pyrolysis of cannabinoids. *Rev. Environ. Contam. Toxicol.* 99, 61–81 (invited).
2. Tjeerdema, R. S. and D. G. Crosby, 1987. The biotransformation of molinate (Ordrum) in the striped bass (*Morone saxatilis*). *Aquat. Toxicol.* 9, 305–317.
3. Tjeerdema, R. S. and R. S. Jacobs, 1987. Elimination of 2,4,5,2',4',5'-hexachlorobiphenyl by the purple sea urchin, *Strongylocentrotus purpuratus*, following single exposure. *Bull. Environ. Contam. Toxicol.* 38, 1029–1036.
4. Tjeerdema, R. S. and D. G. Crosby, 1988. Comparative biotransformation of molinate (Ordrum) in the white sturgeon (*Acipenser transmontanus*) and common carp (*Cyprinus carpio*). *Xenobiotica* 18, 831–838.
5. Tjeerdema, R. S. and D. G. Crosby, 1988. Disposition, biotransformation, and detoxication of molinate (Ordrum) in whole blood of the common carp (*Cyprinus carpio*). *Pestic. Biochem. Physiol.* 31, 24–35.
6. Tjeerdema, R. S., G. E. Croston, L. M. Swall and M. Martin, 1989. *Petroleum Fate and Cleanup Agent Toxicology*. National Technical Information Service PB89-134589-AS, US Department of Commerce, Springfield, VA, 120 pp.
7. Croston, G. E. and R. S. Tjeerdema, 1990. Hydrolysis of a model surfactant as measured using acyl coenzyme A synthetase. *Toxicol. Environ. Chem.* 28, 245–256.
8. Singer, M. M., D. L. Smalheer and R. S. Tjeerdema, 1990. A simple continuous-flow toxicity test system for microscopic life stages of aquatic organisms. *Wat. Res.* 24, 899–903.
9. Singer, M. M., D. L. Smalheer, R. S. Tjeerdema and M. Martin, 1990. Toxicity of an oil dispersant to the early life stages of four California marine species. *Environ. Toxicol. Chem.* 9, 1387–1395.
10. Tjeerdema, R. S. and R. S. Jacobs, 1990. Partitioning of 2,4,5,2',4',5'-hexachlorobiphenyl between seawater and air. *Bull. Environ. Contam. Toxicol.* 44, 572–578.
11. Tjeerdema, R. S., M. M. Singer, G. M. Scelfo, D. L. Smalheer, L. M. Swall, G. E. Croston, D. M. Fry and M. Martin, 1990. *The Toxicology of Oil Spill Cleanup Agents*. National Technical Information Service PB90-250267-AS, US Department of Commerce, Springfield, VA, 175 pp.
12. Scelfo, G. M. and R. S. Tjeerdema, 1991. A simple method for determination of Corexit 9527 in natural waters. *Mar. Environ. Res.* 31, 69–78.
13. Singer, M. M., D. L. Smalheer, R. S. Tjeerdema and M. Martin, 1991. Effects of spiked exposure to an oil dispersant on the early life stages of four marine species. *Environ. Toxicol. Chem.* 10, 1367–1374.
14. Swall, L. M. and R. S. Tjeerdema, 1991. Tissue distribution and temperature dependence of xenobiotic hydrolysis in the dungeness crab (*Cancer magister*). *Aquat. Toxicol.* 20, 1–11.

EXHIBIT F
Standard Agreement

15. Tjeerdema, R. S., T. W.-M. Fan, R. M. Higashi and D. G. Crosby, 1991. Sublethal effects of pentachlorophenol in the abalone (*Haliotis rufescens*) as measured by in vivo ^{31}P NMR spectroscopy. *J. Biochem. Toxicol.* 6, 45–56.
16. Tjeerdema, R. S., R. J. Kauten and D. G. Crosby, 1991. Interactive effects of pentachlorophenol and hypoxia in the abalone (*Haliotis rufescens*) as measured by in vivo ^{31}P NMR spectroscopy. *Aquat. Toxicol.* 21, 279–294.
17. Tjeerdema, R. S., R. J. Kauten and D. G. Crosby, 1991. Sublethal effects of hypoxia in the abalone (*Haliotis rufescens*) as measured by in vivo ^{31}P NMR spectroscopy. *Comp. Biochem. Physiol.* 100B, 653–659.
18. Tjeerdema, R. S. and M. M. Singer, 1991. Closed flow-through aquatic toxicity testing and microscopic organisms: Not necessarily incompatible. *Mar. Pollut. Bull.* 22, 59–61.
19. Tjeerdema, R. S., M. M. Singer and D. L. Smalheer, 1991. Continuous-flow toxicity tests using the microscopic life stages of various marine organisms. *Can. Tech. Rep. Fish. Aquat. Sci.* 1774, 348–354.
20. Singer, M. M., R. S. Tjeerdema and D. L. Smalheer, 1992. Evaluation of the toxicological effects of oil dispersants by modeled-exposure toxicity testing. *Can. Tech. Rep. Fish. Aquat. Sci.* 1863, 175–182.
21. Smalheer, D. L., S. Jacobson and R. S. Tjeerdema, 1992. *Oil Spill Cleanup Agent Efficacy, Toxicity, and Biodegradation*. National Technical Information Service PB92-183623-AS, US Department of Commerce, Springfield, VA, 51 pp.
22. Tjeerdema, R. S. and D. G. Crosby, 1992. Disposition and biotransformation of pentachlorophenol in the red abalone (*Haliotis rufescens*). *Xenobiotica* 22, 681–690.
23. Benner, D. B. and R. S. Tjeerdema, 1993. Toxicokinetics and biotransformation of pentachlorophenol in the topsmelt (*Atherinops affinis*). *J. Biochem. Toxicol.* 8, 111–117.
24. Gates, V. L. and R. S. Tjeerdema, 1993. Disposition and biotransformation of pentachlorophenol in the striped bass (*Morone saxatilis*). *Pestic. Biochem. Physiol.* 46, 161–170.
25. Shofer, S. L. and R. S. Tjeerdema, 1993. Comparative disposition and biotransformation of pentachlorophenol in the oyster (*Crassostrea gigas*) and abalone (*Haliotis fulgens*). *Pestic. Biochem. Physiol.* 46, 85–95.
26. Singer, M. M., S. George, D. Benner, S. Jacobson, R. S. Tjeerdema and M. L. Sowby, 1993. Comparative toxicity of two oil dispersants to the early life stages of two marine species. *Environ. Toxicol. Chem.* 12, 1855–1863.
27. Singer, M. M. and R. S. Tjeerdema, 1993. Fate and effects of the surfactant sodium dodecyl sulfate. *Rev. Environ. Contam. Toxicol.* 133, 95–149 (invited).
28. Tjeerdema, R. S., R. J. Kauten and D. G. Crosby, 1993. Interactive effects of pentachlorophenol and temperature in the abalone (*Haliotis rufescens*) as measured by in vivo ^{31}P NMR spectroscopy. *Aquat. Toxicol.* 26, 117–132.
29. Singer, M. M., S. George, S. Jacobson, I. Lee, R. S. Tjeerdema and M. L. Sowby, 1994. Comparative effects of oil dispersants to the early life stages of topsmelt (*Atherinops affinis*) and kelp (*Macrocystis pyrifera*). *Environ. Toxicol. Chem.* 13, 649–655.
30. Singer, M. M., S. George, S. Jacobson, I. Lee, R. S. Tjeerdema and M. L. Sowby, 1994. Comparative toxicity of Corexit 7664 to the early life stages of four marine species. *Arch. Environ. Contam. Toxicol.* 27, 130–136.
31. Singer, M. M. and R. S. Tjeerdema, 1994. *Dispersed Oil and Dispersant Fate and Effects Research: California Program Results for 1993–1994*. Marine Spill Response Corporation, Research and Development Program, Technical Report Series 94-010, Washington, DC, 46 pp.
32. Tjeerdema, R. S., K. L. Lukrich and E. M. Stevens, 1994. Toxicokinetics and biotransformation of pentachlorophenol in the sea urchin (*Strongylocentrotus purpuratus*). *Xenobiotica* 24, 749–757.
33. Walz, P. M., D. L. Garrison, W. M. Graham, M. A. Cattey, R. S. Tjeerdema and M. W. Silver, 1994. Domoic acid-producing diatom blooms in Monterey Bay, California: 1991–1993. *Nat. Toxins* 2, 271–279.
34. Anderson, B. S., J. W. Hunt, W. J. Piekarski, B. M. Phillips, M. A. Englund, R. S. Tjeerdema and J. D. Goetzl, 1995. Influence of salinity on copper and azide toxicity to larval topsmelt *Atherinops affinis* (Ayres). *Arch. Environ. Contam. Toxicol.* 29, 366–372.
35. Ghilarducci, D. P. and R. S. Tjeerdema, 1995. Fate and effects of acrolein. *Rev. Environ. Contam. Toxicol.* 144, 95–146 (invited).

EXHIBIT F
Standard Agreement

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